The Wayback Machine - https://web.archive.org/web/20140212131828/http://www.abs.gov.au/websitedbs/CaSHome.nsf/Home/MAT06+Misleading+Graphs

Resources

MAT 06 – Misleading Graphs

You can download this activity and the teacher solutions as a rich text file (RTF) at the bottom of the page.

Subject Area	Mathematics
Overview	In task A students investigate the effect of using scale to influence the way information is presented in a graph. In task B students use this knowledge to present the same information persuasively for two opposing audiences.
Requirements	Copy of student worksheet
Instructions	**Task A:**

Herald Sun, Monday, February 15, 2010

Violence blamed on loss of male teachers

Boys lack role models

A DECLINE in the number of male teachers is being blamed for rising youth violence.

Just 28 per cent of the state schoolteachers are men, down from 32 per cent 10 years ago.

Youth crime has soared in that time. Sex attacks, robberies. Assaults and weapon offences have risen significantly, and psychologists and family groups told the *Herald Sun* the loss of male role models was and important factor.

… …

… …

There are almost 1900 more secondary teachers than 10 years ago, but there are 350 fewer men among them.

Male teacher numbers in primary schools have remained steady but they account for less than 25 per cent of the total.

Adolescent psychologist Michael Carr-Gregg said the lack of male teachers was a major problem.

"We know males give something different to the developing boy than what female teachers give," he said.

"To some extent we have lost that male narrative and left it to Hollywood to teach boys about masculinity."

Assaults by 10 – 14-year-olds almost doubled in the past decade, to 1162 in 2008 – 09. Among 15-19-year –olds, assaults jumped by more than 70 percent to 6500. Property damage by 15-19-year-oleds jumped almost 5-fold, from 1217 to 5681. Among 10-14-year-olds such offences rose by more than 60 per cent to 1962.

… …

… …

Ms Pike's spokesman disputed the presence of a link between youth crime and male teacher numbers.

"Promoting respectful behaviour through our "Respect in Schools' program is designed to address these issues," he said.

… …

… …

Australian family Association spokesman John Morrissey, a part-time teacher, said solid, reliable male authority figures were vital to the development of boys and girls, particularly in no-father households.

He said a quota system was needed to boost male teachers.

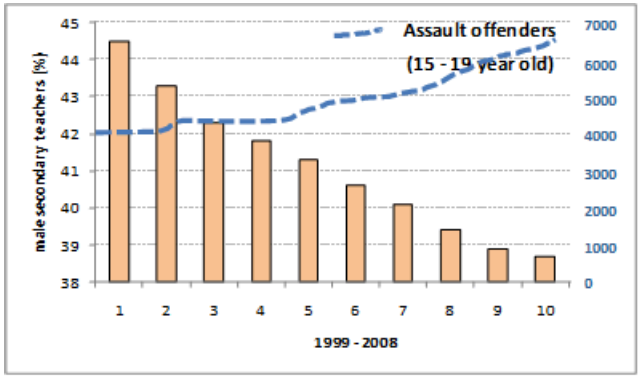

FIGURE 1 Male Assault and Number of Male School Teachers

1. Find evidence in the article and or graph to support the opening statement that “A decline in the number of male teachers is being blamed for rising youth violence.”

2. By carefully reading the values from the graph in FIGURE 1 above, show the same information in the graph below.

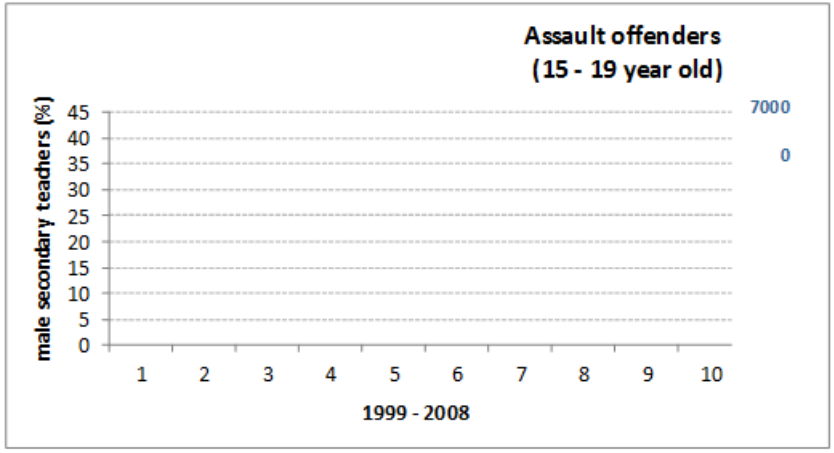

FIGURE 2 Male Assault and Number of Male School Teachers

3. Can you think of reasons other than the decrease in male teachers that could have an effect on the apparent rise in some male crime?

4. What changes do you notice in the way the information looks in this graph?

5. Why does the information look different?

6. Why do you think the newspaper chose to use the scale that it did for this article.

Task B:

1. The information below shows the number of victims for particular crimes from 1999 to 2008. Imagine you were the Minister for Public Safety. Which version of the graph would you publish and why.

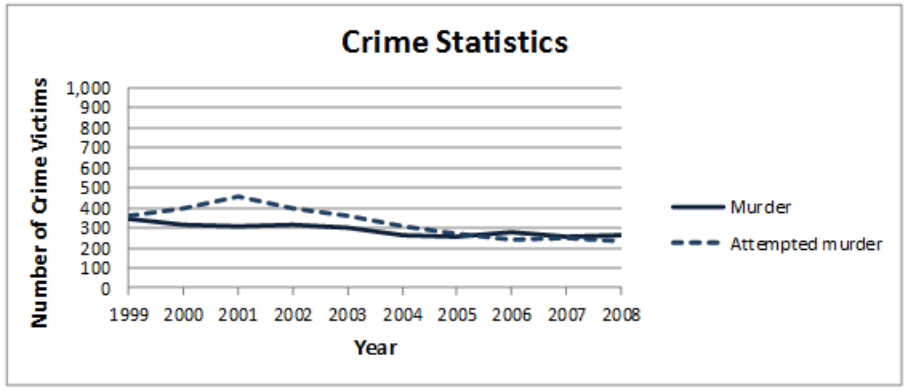

Figure 3: Incidence of Murder and Attempted Murder

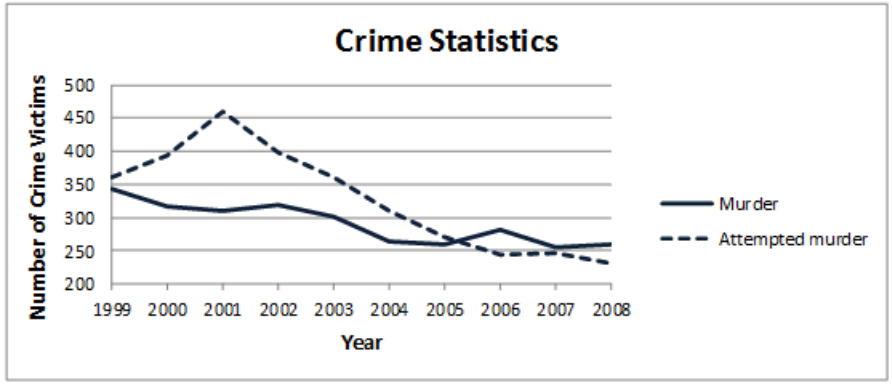

Figure 4: Incidence of Murder and Attempted Murder

2. Use the grid overleaf to graph the following information of the Number of Victims of Blackmail and Extortion. Graph how the information may look if you were:

a) The Minister for Public Safety b) Citizens for a Greater Police Presence.

Year	Blackmail/extortion
1999	254
2000	255
2001	358
2002	355
2003	386
2004	372
2005	393
2006	444
2007	424
2008	418

Downloads

Student Worksheets

Activity A
RTF

Activity B
RTF

Teacher Solutions

Solution A
RTF

Solution B
RTF

Back to top

This page last updated 12 November 2013

© Commonwealth of Australia 2008

Unless otherwise noted, content on this website is licensed under a Creative Commons Attribution 2.5 Australia Licence together with any terms, conditions and exclusions as set out in the website Copyright notice. For permission to do anything beyond the scope of this licence and copyright terms contact us.